

Define
Valence electrons

Octet Rule

Follow the steps below to draw Lewis structures for the following molecules.

Draw the Lewis structure for F_2

Step 1. How many valence electrons does each atom have? _____

Step 2. How many total valence electrons do you have? _____

Step 3. Arrange the molecules in a simple layout next to each other. C is always central, H is never central.

Step 4. Add 2 electrons between the atoms for 1 bond.

Step 5. Add unshared electron pairs around the atoms until an octet is obtained.

Step 6. Check your math. (F_2 will be ok but if you have too many electrons consider multiple bonds.)

How many bonds does H always form? _____ How many unshared pairs of electrons? _____

How many bonds does O always form? _____ How many unshared pairs of electrons? _____

How many bonds does Cl always form? _____ How many unshared pairs of electrons? _____

How many bonds does N always form? _____ How many unshared pairs of electrons? _____

How many bonds does C always form? _____ How many unshared pairs of electrons? _____

Use the steps above to draw Lewis structures of the following molecules.

O_2

N_2

H_2

CO_2

H_2O

CH_4

Lewis structure worksheet 2

Draw Lewis structures for the following molecules

